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EXAMINER	
O CONNOR, BRIAN T	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,583	KRAUSE ET AL.	
	Examiner	Art Unit	
	Brian T. O'Connor	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/17/2004*; 9/13/2004, 10/12/2006
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract contains more than 150 words; according to 37 CFR 1.72 (b) the abstract may not exceed 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-14 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meggers et al. (US 6,728,270; hereafter Meggers) in view of Heddes et al. (US 6,674,718; hereafter Heddes).

With respect to claim 1, Meggers discloses a method for examining an incoming packet stream (AC of Figure 4) then determining if the packets are real-time packet or not (210 of Figure 5) and finally combining the split sub-streams into a single output stream (OI of Figure 4). Packets are entered into both buffers and retrieved from the end of the buffers by an output interface (OI of Figure 4; column 12, lines 1-21). Meggers's calculates a deadline for each packet that enters the system (column 13, lines 20-34).

Meggers fails to disclose determining the capacity of an output buffer scheduled to accept a packet and selecting packets for transmission based one whether the buffer has capacity or not.

Heddes, in an invention related to processing data through several pipes, discloses examining queue levels (132, 136 of Figure 7) when moving data into pipes or buffers (7, 8, 9 of Figure 1A). Heddes further disclose that the output of the examination of the queue levels is used to assign packets to positions in the queues (212, 214, 218, 224 of Figure 10).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Meggers.

With respect to claim 2, Meggers further discloses that packet are read from the queue and transmitted based upon a delivery deadline, and the delivery deadline is converted from a timestamp for priority control (column 11, lines 59-67).

With respect to claim 3, Meggers further discloses that every time a packet arrives (210 of Figure 5) the processing will update timestamps and delivery deadlines (column 12, lines 27-31).

With respect to claim 4, Meggers further discloses that the delivery deadline is converted from a timestamp for priority control (column 11, lines 59-67).

With respect to claim 5, Meggers further discloses that the timestamp is related to a synchronization control packet (column 11, lines 61-65) that has control parameters N and i (column 12, lines 51-65). The control parameter N is related to a synchronisation entity (SE) of packets (column 12, lines 61-14) and the SE is viewed as equivalent to a next access unit or frame of packets.

With respect to claim 6, Meggers further discloses that real-time data is processed in sub-streams (column 9, lines 5-10) that are defined by admission control packets

(column 10, lines 4-10). Meggers also teaches that a sub-stream of packets is also viewed as a synchronisation entity (SE) (column 7, lines 19-30).

With respect to claim 7, Meggers further discloses that real-time data is processed in sub-streams (column 9, lines 5-10) that are defined by admission control packets (ACPs) (column 10, lines 4-10). ACPs are sent to the network node prior to started real-time packet transmission (column 10, lines 12-23).

With respect to claim 8, Meggers further discloses that the timestamp is related to a synchronization control packet (column 11, lines 61-65) that has control parameters N and i (column 12, lines 51-65). The control parameter N is related to a synchronisation entity (SE) of packets (column 12, lines 61-14) and an SE is defined as consisting of video frames (column 6, lines 48-50).

With respect to claim 9, Meggers further discloses that the timestamp is related to a synchronization control packet (column 11, lines 61-65) that has control parameters N and i (column 12, lines 51-65). The control parameter N is related to a synchronisation entity (SE) of packets (column 12, lines 61-14) and an SE is defined as consisting of voice packets or VOIP (column 6, lines 50-55).

With respect to claim 10, Meggers further discloses that the packets are related to a synchronization control packet (column 11, lines 61-65) that has control parameters N and i (column 12, lines 51-65). The control parameter N is related to a synchronisation entity (SE) of packets (column 12, lines 61-14) and an SE is defined as consisting of voice packets or VOIP (column 6, lines 50-55).

With respect to claim 11, Meggers further discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55).

With respect to claim 12, Meggers further discloses that non real-time streams are send to a second queue for FIFO processing (column 11, lines 49-52; column 12, lines 32-36). FIFO processing uses order of arrival for transmitting packets and it thus represents a time spent waiting in a queue compared to other packets in the queue.

With respect to claim 13, Meggers further discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

With respect to claim 14, Meggers further discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control parameter D for setting a delivery deadline (column 9, lines 44-49; viewed as equivalent to a waiting time priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

With respect to claim 39, Meggers discloses a network node that receives and transmits streams of packets (Figure 4). The network node contains a decision means (column 4, lines 27-38; column 13, lines 64-67) and a packet scheduler (column 3, lines 15-20). Meggers also teaches classifying incoming packets as realtime or non-realtime (210 of Figure 5), thus the decision means could be configured to perform the operation of assigning tags to indicate a priority for packets that are realtime. Meggers also teaches sending packets to queues (240, 260 of Figure 5) for transmitting, thus the packet scheduler could be configured to send packets to the queues for tranmission.

Meggers fails to disclose determining the capacity of an output buffer scheduled to accept a packet and selecting packets for transmission based one whether the buffer has capacity or not.

Heddes, in an invention related to processing data through several pipes, discloses examining queue levels (132, 136 of Figure 7) when moving data into pipes or buffers (7, 8, 9 of Figure 1A). Heddes further disclose that the output of the examination of the queue levels is used to assign packets to positions in the queues (212, 214, 218, 224 of Figure 10).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the node of Meggers.

With respect to claim 40, Meggers further discloses two queues (EDF, FIFO of Figure 4; viewed as equivalent to buffers) to store packets entering and leaving the node. These queues could be configured to store tags for each packets.

With respect to claim 41, Meggers further discloses a determining unit (column 4, lines 27-29) that could be configured to store priorities based on the decision that an incoming packet is realtime or non-realtime.

With respect to claim 42, Meggers further discloses a transfer unit (column 4, lines 39-45) that could be configured to change a priority for an incoming packet and forward the packet to one of two queues (EDF, FIFO of Figure 4).

4. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore et al. (US 7,139,398; hereafter Candelore) in view of Heddes.

With respect to claim 15, Candelore discloses a method of combined several data-streams into a multiplexer (322, 329, 304, 32 of Figure 6) and send over a cable system into two separate channel (36, 336 of Figure 6) for television reception. The data-streams are identified by PID values (Primary PID, Secondary PID of Figure 7; column 20, lines 5-43. Candelore also discloses selecting a subset of data-streams by the PID and a continuity counter (950, 954 of Figure 17) and then changing or reassigning the subset to a different PID (992 of Figure 17). Candelore also teaches selecting a subset of one data-streams for encryption and remapping the packet to a different PID (814, 822 of Figure 13). Candelore teaches using buffers in the method of data-stream processing (912 of Figure 15, 912 of Figure 16).

Candelore fails to disclose checking a threshold for a communication channel and checking that a different amount of data does not exceed a second threshold for a different communication channel.

Heddes, in an invention related to processing data through several pipes, discloses examining queue levels (132, 136 of Figure 7) when moving data into pipes or buffers (7, 8, 9 of Figure 1A). Heddes further disclose that the output of the examination of the queue levels is used to assign packets to positions in the queues (212, 214, 218, 224 of Figure 10). Heddes teaches the use of two thresholds a minimum level and a maximum level (42, 44 of Figure 3).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

With respect to claim 16, Candelore further discloses that the first and second PID are used to notify television receivers of updates to the data-streams (column 5, lines 30-40).

With respect to claim 17, Candelore fails to disclose thresholds used to control data loss.

Heddes, in an invention related to processing data through several pipes, discloses examining queue levels (132, 136 of Figure 7) when moving data into pipes or buffers (7, 8, 9 of Figure 1A). Heddes further disclose that the output of the examination of the queue levels is used to assign packets to positions in the queues (212, 214, 218, 224 of Figure 10). Heddes teaches the use of two thresholds a minimum level and a maximum level (42, 44 of Figure 3). Heddes method is used to control loss of bandwidth (column 7, lines 48-56; where loss of bandwidth is viewed a equivalent to loss of data).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

With respect to claim 18, Candelore further discloses removing the primary PID from the subset of the data-stream (992 of Figure 17) and assigned a second PID (column 30, lines 5-16). The re-assignment will cause a clocking delay (column 29, lines 20-22).

With respect to claim 19, Candelore discloses that re-assignment will cause a clocking delay (column 29, lines 20-22) of three or four clock bytes. The time needs to retune the television receiver is less that three or four clock bytes because retuning only requires reading a new PID value from the incoming data-stream (column 5, lines 34-40).

With respect to claim 20, Candelore fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority.

Heddes, in an invention related to processing data through several pipes, discloses examining creating priorities (202, 204 , 206 of Figure 9) and then assigning a priority to packets from a data-stream or buffer (216, 220, 224 of Figure 10) before transmitting the packets (234, 238, 242 of Figure 11).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

5. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore et al. (US 7,139,398; hereafter Candelore) in view of Heddes and further in view of Meggers.

With respect to claim 21, Candelore fails to disclose determining a deadline for a packet that is moved from a first datastream to a second datastream.

Meggers discloses changing a deadline priority based on the difference of control parameters (column 13, lines 20-34) for all packets moved from a first queue to a second queue (column 14, lines 8-15).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

With respect to claim 22, Candelore discloses that re-assignment will cause a clocking delay (column 29, lines 20-22) of three or four clock bytes. The time needs to retune the television receiver is less that three or four clock bytes because retuning only requires reading a new PID value from the incoming data-stream (column 5, lines 34-40).

Candelore fails to disclose determining a deadline for a packet moving from a first datastream to a second datastream.

Meggers discloses changing a deadline priority based on the difference of control parameters (column 13, lines 20-34) for all packets moved from a first queue to a second queue (column 14, lines 8-15).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

With respect to claim 23, Candelore further discloses that the PID is switched for one data-stream and sent over a cable system to the television receivers. Changing a PID in a cable system is known in the art to cause a change in RF channels.

6. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore in view of Meggers.

With respect to claim 24, Candelore discloses a method of combined several data-streams into a multiplexer (322, 329, 304, 32 of Figure 6) and send over a cable system into two separate channel (36, 336 of Figure 6) for television reception. The data-streams are identified by PID values (Primary PID, Secondary PID of Figure 7; column 20, lines 5-43. Candelore also discloses selecting a subset of data-streams by the PID and a continuity counter (950, 954 of Figure 17) and then changing or reassigning the subset to a different

PID (992 of Figure 17). Candelore also teaches selecting a subset of one data-streams for encryption and remapping the packet to a different PID (814, 822 of Figure 13). Candelore teaches using buffers in the method of data-stream processing (912 of Figure 15, 912 of Figure 16).

Candelore fails to disclose determining real-time properties of the data-streams.

Meggers discloses a method for a network node to receive and send packets in a data-stream. The node will determine the real-time classification of incoming packets (210 of Figure 5).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

With respect to claim 25, Candelore further discloses that the first and second PID are used to notify television receivers of updates to the data-streams (column 5, lines 30-40).

With respect to claim 26, Candelore further discloses that the PID is switched for one data-stream and sent over a cable system to the television receivers. Changing a PID in a cable system is known in the art to cause a change in RF channels.

7. Claims 27-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore in view of Meggers and further in view of Heddes.

With respect to claim 27, Candelore fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority.

Heddes, in an invention related to processing data through several pipes, discloses examining creating priorities (202, 204 , 206 of Figure 9) and then assigning a priority to packets from a data-stream or buffer (216, 220, 224 of Figure 10) before transmitting the packets (234, 238, 242 of Figure 11).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

With respect to claim 28, Candelore fails to disclose determining that a subset of the data streams includes a time indicator and creating a first priority as a function of the time indicator.

Meggers discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control parameter D for setting a delivery deadline (column 9, lines 44-49; viewed as equivalent to a waiting time priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

With respect to claim 29, Candelore fails to disclose determining that a subset of the data streams includes a time indicator and creating a first priority as a function of the time indicator.

Meggers discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control parameter D for setting a delivery deadline (column 9, lines 44-49; viewed as equivalent to a waiting time priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

With respect to claim 30, Candelore fails to disclose a time indicator or a time stamp.

Meggers further discloses that the delivery deadline is converted from a timestamp for priority control (column 11, lines 59-67).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

With respect to claim 31, Candelore fails to disclose determining that a subset of the data streams includes a time indicator and creating a first priority as a function of the time indicator.

Meggers discloses that sub-streams are assigned an admission control packet (ACP) (column 10, lines 4-11) and this ACP will define control parameter T for assigning a type to the sub-stream (column 9, lines 50-55). The ACP will also define a control parameter D for setting a delivery deadline (column 9, lines 44-49; viewed as equivalent to a waiting time

priority). And that the arrival of real-time sub-streams with ACPs is considered in the processing of non real-time streams send to a second FIFO queue (column 14, lines 2-14).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

With respect to claim 32, Candelore fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority.

Heddes, in an invention related to processing data through several pipes, discloses examining creating priorities (202, 204 , 206 of Figure 9) and then assigning a priority to packets from a data-stream or buffer (216, 220, 224 of Figure 10) before transmitting the packets (234, 238, 242 of Figure 11).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

With respect to claim 33, Candelore discloses detecting the subset of packets with a certain PID (950 of Figure 17).

Candelore fails to disclose normalizing a parameter for identifying a second subset.

Heddes, in an invention related to processing data through several pipes, discloses examining creating normalized priorities (202, 204 , 206 of Figure 9) and then assigning a priority to packets from a data-stream or buffer (216, 220, 224 of Figure 10) before transmitting the packets (234, 238, 242 of Figure 11).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

With respect to claim 34, Candelore fails to disclose a quality of service contraints as parameter for scheduling packets.

Heddes, in an invention related to processing data through several pipes, discloses examining creating normalized priorities (202, 204 , 206 of Figure 9) and then assigning a priority to packets from a data-stream or buffer (216, 220, 224 of Figure 10), this priorities affect the bandwidth amount for a data pipe and would be recognized as a quality of service constraint by one of ordinary skill in the art because different levels of bandwidth affect the quality of the data stream.

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

With respect to claim 35, Candelore fails to disclose deciding that a group of packets from the datastream is ready for transmission.

Heddes, in an invention related to processing data through several pipes, discloses examining queue levels (132, 136 of Figure 7) when moving data into pipes or buffers (7, 8, 9 of Figure 1A). Heddes further disclose that the output of the examination of the queue levels is used to assign packets to positions in the queues (212, 214, 218, 224 of Figure 10).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus,

it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Meggers.

With respect to claim 36, Candelore fails to disclose prioritizing data-streams and choosing a stream with the highest priority relative to other data-streams and transmitting a data-stream according to the priority. Also Candelore fails to disclose determining a buffer is not able to receive a set of data and determining a different buffer can receive a set of data.

Heddes, in an invention related to processing data through several pipes, discloses examining creating priorities (202, 204 , 206 of Figure 9) and then assigning a priority to packets from a data-stream or buffer (216, 220, 224 of Figure 10) before transmitting the packets (234, 238, 242 of Figure 11). Heddes also discloses examining queue levels (132, 136 of Figure 7) when moving data into pipes or buffers (7, 8, 9 of Figure 1A). Heddes further disclose that the output of the examination of the queue levels is used to assign packets to positions in the queues (212, 214, 218, 224 of Figure 10).

Heddes teaches the benefit of increased efficiency while processing data through multiple queues by examining the queues levels or capacity (column 7, lines 27-30). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Heddes with the method of Candelore.

With respect to claim 37, Cadelore further discloses that when the packets are transmitted a counter is used (954 of Figure 17) to check a threshold of primary PID and secondary PID values. When a change flag is detected the network node will change or reclassify the PID of the packets.

With respect to claim 38, Cadelore fails to disclose changing a first priority based on a modified priority difference.

Meggers discloses changing a deadline priority based on the difference of control parameters (column 13, lines 20-34).

Meggers teaches the benefit of a simpler control mechanism by using control packets to determine stream characteristics (column 5, lines 42-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Candelore with the method of Meggers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. O'Connor whose telephone number is 571-270-1081. The examiner can normally be reached on 9:00AM-6:30PM, M-F, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BTO

Brian T. O'Connor
December 4, 2007
Patent Examiner

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600